University of Idaho Extension

January, 2014

BEEF CATTLE ANIMAL WELFARE

K. Scott Jensen, UI Extension Educator, Owyhee County

Inside this issue:

Animal welfare concerns continue to make headlines. Animal welfare can be defined as the physical and psychological well-being of animals. The American Veterinary Medical Association (AVMA) states that animals in a good state of welfare are healthy, comfortable, well nourished, safe, and able to express innate behaviors. They are also free of pain, fear, and distress. It is safe to say that this is not only important to the AVMA but also is of great importance to today's consumers.

Consumers are demanding to know more about how their beef is produced. Retailers are exhibiting higher expectations in order to keep customers coming back. Maintaining consumer confidence and trust is paramount to sustaining demand for beef and beef products.

Perhaps the most important aspect of animal welfare is producer attitude. Temple Grandin has stated "Observations made on several hundred farms, ranches, feedlots, and slaughter plants indicates that the **single most important factor which affects animal welfare is the attitude of management**. Places that have good animal welfare have a manager who cares about welfare. Places where animal welfare is poor often have a manager who does not care". Fortunately for our industry, most producers truly care about the cattle under their stewardship.

Industry is beginning to make public their attention to animal welfare concerns. A December 10, 2013 article in the Drover's Journal reported that Tyson Foods will require that cattle producers follow on -farm requirements for animal treatment if they want to sell beef to Tyson.

While many might be tempted to say that this is a feedlot operator issue, Anne Burkholder (feedlot manager and Tyson advisory board member) made the following statement: "It's going to be necessary for the cow-calf sector to get on board when it comes to animal handling and welfare. There is going to be some push from feedlots to have cattle that are easier to handle coming from the cow-calf sector. For me looking forward, there is going to be some trickle-down because animals that can't be handled well in the feedyard aren't going to work well. I would hope that we can unite under our product; that's my wish. I hope that before I die that we can vertically collaborate, not vertically integrate, but work together as a whole industry to remain viable in the eyes of the consumer and sustainable for future generations."

You might be wondering what now? What else do I have to do? For the most part, the on farm requirements are things that you are already doing. The additional step will be documenting your animal production practices. The specific elements of the Tyson program are:

- Animal welfare training
- Daily observations of animals and facilities
- Site self-check assessments
- Animal handling practices (in all areas of the feedyard, including transportation)
- Humane euthanasia procedures
- Defining acts of intentional animal abuse

- See more at: http://igrow.org/livestock/beef/the-tyson-farmcheck

Take a few minutes to review the animal welfare practices on your ranch. Are you doing all that you can to properly care for your animals? Is there room for improvement? Let's be sure that each of us do our part in maintaining consumer trust and confidence as we produce the best beef in the world! ♦

South Mountain Ranch Heifer to Be Auctioned to Benefit the Fight to Preserve the West

On Tuesday, February 11, 2014 South Mountain Ranch will donate a registered Angus heifer at their annual Angus and Hereford Production Bull Sale to benefit the Owyhee 68 litigation. "We not only want to support those ranchers who are faced with BLM's decision of cutting Owyhee grazing permits in half, but we also want to do our part in protecting our industry in the precedence that could be set in these cases for every permit renewal to come," explains South Mountain Ranch co-owner Matt Duckett. Half of the proceeds from the sale of the heifer will be donated to the Owyhee Cattlemen's Heritage Fund and the other half to the Idaho Cattle Association's Cattle Action Legal Fund to help finance the legal battle to appeal the current BLM decisions regarding the Owyhee 68.

Over the years, grazing rights of western ranchers have been significantly, negatively impacted by laws and regulations put in place due to the litigious actions of anti-grazing activists. With every action the government takes on grazing permits, it seems as though our ability to raise livestock in the west is chipped away bit by bit.

A 1999 U.S. District Court decision required the BLM to complete the renewal process for all 68 permits by the end of 2013. After 16 years, decisions are being issued. Unfortunately, these decisions are altering seasons of use and drastically reducing grazing to unsustainable levels. Of the 150 allotments within Owyhee County, 120 are involved in this litigation and permit renewal.

South Mountain Ranch understands the impact of these decisions. This is not just an Owyhee County issue. What is happening in Owyhee County could very well happen across Idaho and the west as permits come up for renewal. "We are all in this as an industry" Duckett explains as the reason for donating the heifer to this effort. "Our hope is that we will all join in this fight and we can sell this heifer several times to help the cattle industry make a stand here."

The heifer will be sold at the beginning of their annual production sale on Tuesday, February 11, 2014 at the ranch, 13584 State Highway 78, Melba, Idaho. For more information feel free to contact Matt Duckett at 208-230-5650 or the ICA office at 208-343-1615.

This newsletter is provided as a public service to producers and others in beef industry related fields. If you do not have an interest in receiving the Cattlemen's Corner Beef Newsletter in the future, please contact the Extension Office and we will remove your name from our mailing list. Likewise, if you know of someone who would like to receive the newsletter, please let us know, 208-896-4104 or owyhee@uidaho.edu. Past editions of the newsletter are available on our website at http://www.extension.uidaho.edu/owyhee

Keeping the Legacy Alive . . . Estate and Succession Planning for Farmers and Ranchers

January 14, 21, 28, February 4
1:00 - 5:00 p.m.
and
February 25
6:00 - 8:30 p.m.
(dinner will be provided)
Owyhee County Extension Office

Participation Cost:

- Per person: $25
- Per ranch/farm family: $40 (1 set of materials)

Who Should Attend:

- Farmers and Ranchers concerned with passing the farm or ranch on to the next generation.

How You Can Benefit:

- Learn the do's and don'ts of succession planning
- Gain the impetus to get started in the process
- Identify what is important to each generation
- Gain ideas to fairly divide and transfer non-titled property

Learn How to:

- Determine the things that should be considered in a succession plan
- Develop a succession plan in a step-by-step process
- Open the lines of communication with family members
- Define personal, family, and business objectives and goals
- Collect and analyze information
- Organize your important paperwork
- Compare and choose among available options
- Implement and monitor a succession plan

Class size is limited. Pre-register by January 10. We are able to accept payment by credit card.

For more information, contact Scott Jensen at 208-896-4104 or scottj@uidaho.edu.

A brochure and registration form is available at the Extension Office or on our website at **http://www.extension.uidaho.edu/owyhee**

HOW ARE EXPECTED PROGENY DIFFERENCES (EPDs) BEING UTILIZED IN THE BEEF INDUSTRY?

J. Benton Glaze, Jr., Ph.D., UI Extension Beef Cattle Specialist

Expected progeny differences (EPDs) were introduced into the beef industry in the 1980's. EPDs provide estimates of the genetic value of an animal as a parent. Over the last twenty to thirty years, the beef industry has made great use of genetic selection tools to improve a number of traits. Most would agree that much of that improvement is due to the implementation and use of EPDs. However, results from a recent beef industry survey suggest that EPDs may not be receiving the attention they should.

In 2010, BEEF® Magazine conducted a cattle production/genetics survey. The survey was completed by 966 beef cattle producers from across the United States (approximately 20% coming from the western states). Almost 65% of the survey respondents were commercial cow/calf producers and 11.5% were seedstock/ purebred producers. The majority of the remaining respondents were stocker, backgrounder, and feeder operations.

The 635 commercial cow/calf producers that participated in the survey were asked to respond to the following question: "Which of the following information do you require to purchase a bull?" (Table 1). Bull buying/selection is one of the most important beef producer decisions and provides an opportunity to improve the productivity and profitability of beef operations. With that in mind, and considering the survey results presented in the table, it is somewhat disappointing that performance information is not a higher priority for beef producers in their bull buying decisions.

Several of the producers' responses (pieces of information required) and the percentage of producers requiring those pieces of information are included in the following list: actual birth weight (71.7%), birth weight EPD (71.3%), actual weaning weight (56.1%), weaning weight EPD (53.2%), actual yearling weight (44.7%), yearling weight EPD (42.5%), adjusted yearling scrotal measurements (43.1%), scrotal EPD (32.8%), actual disposition score (25.7%), and disposition EPD (21.7%). This list contains groupings of traits that were represented in the survey with actual performance measurements (weights, centimeters, scores) and trait EPDs. This list, and the percentage of producers requiring the items for bull purchases, shows that a higher percentage of producers were requiring actual data than the EPDs for each of the traits. This suggests that when producers seek information for bull buying decisions, they are not always using the best sources of information.

It is well documented that EPDs are the single best tool for making bull buying/selection decisions. When available for traits, EPDs should be the only source of information used in the decision making process. Actual performance measurements (weights, heights, centimeters, scores, etc.) are affected/controlled by several factors including management, environment and genetics. Actual measurements are not very useful when trying to determine how good of a parent a bull might be since his actual performance for a trait is influenced by the management and environment he was subjected to. In other words, a bull may appear to be good or bad due to the environment in which he was raised and not because of the genetics that he possesses and will pass on to his progeny. Good management and a good environment can mask poor genetics. Generally, actual performance measurements are not good indicators of an animal's genetic worth.

. . . continued on page 4

Table 1. Pieces of information required for bull purchases (adapted from BEEF, 2010).[a]

Item	% of Producers Requiring
Actual birth weight	71.7
Birth weight EPD	71.3
Actual weaning weight	56.1
Calving ease – direct EPD	55.0
Weaning weight EPD	53.2
Milking ability EPD	51.2
Actual yearling weight	44.7
Adjusted yearling scrotal measurement	43.1
Yearling weight EPD	42.5
Calving ease – maternal EPD	40.0
Adjusted weaning weight	37.2
Scrotal EPD	32.8
Carcass EPDs	29.1
Adjusted yearling weight	26.6
Actual disposition score	25.7
Feed efficiency EPD	25.2
Disposition EPD	21.7
Feedlot performance EPDs	20.0
Stayability EPD	12.6
Economic index EPDs	9.8
Heifer pregnancy EPD	9.0
Gestation length EPD	4.7

[a] Survey respondents could select more than one answer.

EPDs . . . . continued from page 3

Expected progeny differences (EPDs) are indicators of the genetic worth of an animal as a parent. They are computed using information on the individual animal and its relatives. As mentioned previously, actual performance measurements (weights, heights, centimeters, scores, etc.) are affected/controlled by factors such as management, environment and genetics. EPDs are adjusted (non-genetic factors removed or accounted for) to allow a fair comparison of animals born in different years, subjected to various management protocols, and raised under different environments. They provide more accurate information for comparing the genetics of animals than actual performance measurements.

Expected progeny differences (EPDs) represent the beef industry's most powerful source of information for selection and genetic improvement. EPDs are the best estimate of an animal's genetic worth. EPDs are calculated by breed associations and presented in the breed associations' sire summaries. Before implementing a selection protocol, producers should define their production goals, set minimum performance standards for each trait of interest, evaluate their herd, and select bulls that are superior for the traits of interest and that will allow production goals to be met. There is no question that EPDs have provided the means for improvement and progress in many beef cattle herds. However, the results of this survey show there is room for improvement when it comes to the use of EPDs in bull buying decisions. ♦

DEICERS DEBUNKED

Tyanne Freeburg, UI Extension Educator, Adams County

Chores need done every day no matter what the thermometer says. But until temperatures start to regularly equal middle age, ice problems may be a continuous pain in the… well in whichever body part hits the ground first.

Deicing packages are sold everywhere this time of year. Always read the label to ensure you are buying the best product for your needs. Different types of salt are very common ice melting substances and have many pros but quite a few cons as well. Salt is inexpensive, but can also do a lot of damage. It can also injure pets and plants can be affected if in a heavily salted area. Urea, a fertilizer, is also very common and is safer than salt, but can burn plants if too much is applied. A salt alternative containing acetamide may be easier on your dogs paws (Wells 2012).

Alternative products that are highlighted in the Farmers' Almanac article "How to Melt Ice Naturally" are alfalfa meal and sugar beet juice. Alfalfa meal is used as a fertilizer but is also a good deicer and adds traction for easier walking where applied. Sugar beet juice will lower the freezing point of water and is used on its own or mixed with salt deicers (McLeod 2010).

If you are just trying to make walking a little safer, then an abrasive that improves traction may be the best. Sand, ash, and cat litter are commonly used, but are messy when tracked into the house. ♦

McLeod, J. (2010). "How to Melt Ice Naturally." Retrieved December 18, 2013, from http://www.farmersalmanac.com/home-garden/2010/02/15/how-to-melt-ice-naturally/.
Wells, E., Ph.D. (2012). "Winter Dog Care." Retrieved December 18, 2013, from http://www.extension.org/pages/58780/winter-dog-care#.UrH2ZvRDvSg.

The IRM Beef Red Books are now available at the Extension Office. We will bring whatever we still have to the Winter Beef School and

www.magazinebank.com

THE COW - CALF MANAGER

John B. Hall, Ph.D., UI Extension Beef Cattle Specialist

Reducing Effects of Weather Stress in Cows and Calves. Weather stress on cattle was big news recently with the blizzards in South Dakota, but weather stress can occur during normal Idaho winters. Producers failing to adjust their management and nutrition program to the weather may have cows that calve in poor body condition, produce weak calves, and fail to breed back. Calves born into cold or wet weather conditions have reduced chances of survival.

Effects on Cows. Cold, wet snow, and wind alone or together can create weather stress on cows. Lower critical temperature (LCT) is the temperature below which an animal must burn extra energy to keep warm. The lower critical temperature for Idaho cows with heavy dry winter coats is about 18°, but the LCT of wet cows is 59° (Table 1). If the energy is not supplied as extra nutrition then cows will burn fat and lose weight to keep warm.

Cows that lose weight during late gestation and calve in low (BCS 4) to thin (BCS 2 or 3) body condition will have lower pregnancy rates this spring. Thin cows also produce weak calves that have a reduced chance of survival. Research from Colorado State indicates that first calf heifers calving in body condition score of 4 or less produce colostrum with reduced antibody levels. Calves from these undernourished heifers were more likely to become sick than calves from well-fed heifers.

An increase in windchill or wet weather can dramatically increase the cold stress on cows. Table 2 shows the windchill temperatures for cattle with dry winter coats, and Table 3 indicates the general average temperatures and windspeed in areas of Idaho during January, February, and March. Producers should use their monthly and weekly averages for their area of the state. Remember to use the average daily temperature not the average low temperature.

Table 1. Lower Critical Temperature (LCT) for cattle depends on coat condition.

Coat Description	Lower Critical Temperature (°F)
Summer or wet	59°
Fall	45°
Winter	32°
Heavy winter	18°

From Marsten et al., 1998

Table 2. Windchill factors for Cattle with dry Winter Coat.

Wind Speed (mph)	Temperature (°F)										
	0	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**
Calm	0	5	10	15	20	25	30	35	40	45	50
5	-6	-1	3	8	13	18	23	28	33	38	43
10	-11	-6	-1	3	8	13	18	23	28	33	38
15	-15	-10	-5	0	4	9	14	19	24	29	34
20	-20	-15	-10	-5	0	4	9	14	19	24	29
25	-27	-22	-17	-12	-7	-2	2	7	12	17	22
30	-36	-31	-27	-21	-16	-11	-6	-1	3	8	13

Table 3. Average Daily Temperatures and Windspeeds during Winter in Idaho

	Central Mountains		Snake River Plain	
Month	Temperature	Windspeed	Temperature	Windspeed
January	15	2	25	9
February	20	3	32	9
March	29	4	40	10

Adapted from NOAA and various weather sources

Based on these averages, cows with heavy coats in the Central Mountains are experiencing mild cold stress in January and February; whereas, cows in the Snake River Plain are only stressed in January. However, extremely windy or snowy conditions can quickly change the amount of stress experienced by cattle; just as it did last winter in many parts of the Snake River Plain. What is the magnitude of cold stress in normal years? Windchill temperatures are 5 to 20°F below LCT for cows with dry winter coats. For cows with wet coats, the windchill temperatures can easily be 20 to 30°F below LCT.

Research from Kansas and Iowa indicates that maintenance energy requirements of the cow increase by 1% for each degree below the LCT (Table 4). For wet cows, the rule of thumb is 2% of every degree below LCT. So energy requirements of cows in January are may be 10 to 20% above what is expected. Periods with

. . . continued on page 6

Cow-Calf Manager . . . . continued from page 5

high winds, snow or rain increase energy requirements were 20 to 25% above expected.

So how does this change how producers should feed cows? In normal January and February conditions cows will need an additional 3 to 4 lbs of hay OR 2 to 2.5 lbs of grain. For all practical purposes, producers can feed more hay to compensate for weather stress. However, if hay is low in energy then 2 to 2.5 lbs of grain should be fed per cow. Hays that are low in protein will need supplemented with 1 to 2 lbs of protein. Cows that do not receive extra energy will lose 0.5 to 1 lb per day.

In extremely cold or wet conditions, cows will need to eat 7 to 8 more pounds of hay OR 4 to 5 lbs of grain or high energy by-products (i.e. distiller's grain). In most cases, cows will not be able to eat another 8 lbs of hay per day unless hay is very good quality. In these extreme weather cases, cows should be fed the additional grain during the period of cold stress. Cows that are not fed additional energy can lose 1.5 to 2 lbs per day during extreme conditions.

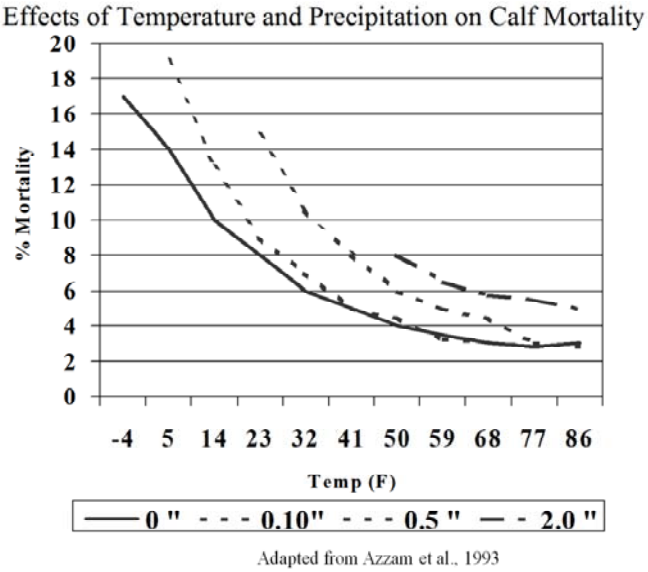
Table 4. Percentage of Increased Energy Needed per Degree of Temperature Below Lower Critical Temperature.

	Cow Weight (lbs)			
	1,000	1,100	1,200	1,300
Coat type	Percentage increase in energy req. per degree below LCT			
Summer or wet	2.0	2.0	1.9	1.9
Fall	1.4	1.3	1.3	1.3
Winter	1.1	1.0	1.0	1.0
Heavy winter	0.7	0.7	0.6	0.6

From Ames, Kansas State University

Even if cows have lost weight during extreme cold stress periods, it is not too late to increase energy intake so cows gain weight. Usually feeding 3 to 5 lbs of grain or high energy by-products for several weeks will help cows recover lost weight.

Effects on Calves. Cold stress on calves has more lethal consequences than cows. Newborn calves are the most susceptible cattle to cold stress. Calves less than 2 weeks old and sick calves are also at risk. The figure below illustrates the dramatic effect cold and precipitation have on calf survival. The lower critical temperature for calves is closer to 60° F with calf mortality increasing exponentially as temperatures move below 50°F. Add a little rain or snow and the LCT moves closer to 70°F. As little as 1/10 of an inch of rain on the day the calf is born can increase calf losses by 2 to 4 %.



Adapted from Azzam et al., 1993

Strategies to reduce this stress start with keeping the cows well fed and in good body condition. Cows that calve in good body condition (BCS 5 -6) have stronger calves with greater energy reserves. These cows are also less likely to run out of energy during calving and will be up drying off the calf sooner than underfed cows.

Extra diligence in checking cows for signs of calving during extreme weather conditions is also important. Calves need to nurse within 2 to 4 hours of birth or sooner during cold or wet conditions. Feeding cold-stressed calves 2 quarts of warm colostrum with an esophageal feeder (calf tube feeder) will help reduce calf loses, and give calves enough energy to nurse on their own.

A clean, well-drained calving location with windbreaks will help decrease the impacts of poor weather on calves. In some cases, cows and calves may need to be moved to sheds or barns for the first day or two of the calf's life. However, cows and calves should be moved to pastures as soon as the calf is strong and eating well, usually 1 to 2 days after calving. Due to health considerations, cows should be calved out on clean pastures whenever possible; calving in barns should be used only as needed.

Commercial calf blankets such as the Woolover® blanket can increase calf survivability and gain. Research from North Dakota State demonstrated a 0.3 lbs increase in average daily gain for beef calves wearing blankets for the first 3 weeks of life. Having enough blankets for all calves would be cost prohibitive, but putting these blankets on weak or chilled calves for a few days while they are in the calving or maternity barn may help calf survival.

Dealing with cold weather stress sometimes means more management than just "keeping their bellies full", but producers that stay on top of weather conditions and adjust their management accordingly will be rewarded with healthier calves and more pregnant cows. ♦

OWYHEE CATTLEMEN'S ASSOCIATION
P.O. Box 400, Marsing, ID 83639
(208) 896-4104

Date: _____/_____/_____

Your dues are now payable **ONLY IF** it has been a year since they were paid.
LIFE MEMBERS are not required to pay annual dues.

Name_____ Phone #_____

MAILING Address_____
City State Zip

Dues Assessment Schedule

Cow-calf operations (mother cows)			
1 to 20	$15		
21 to 100	$25	Over 501	$50
Over 101	$30	Over 601	$55
Over 201	$35	Over 701	$60
Over 301	$40	Over 801	$65
Over 401	$45	Over 900	$70

Feedlot operations (one time capacity)			
Up to 1000	$25	Over 5001	$50
Over 1001	$30	Over 6001	$55
Over 2001	$35	Over 7001	$60
Over 3001	$40	Over 8001	$65
Over 4001	$45	Over 9000	$70

Check one: (See schedule above, and back of form for definitions, examples)

[ ] **INDIVIDUAL** . . . . . $_____

[ ] **FAMILY** . . . . . $_____

[ ] **CORPORATION** . . . . . $_____

[ ] **PARTNERSHIP** . . . . . $_____

[ ] **ADDITIONAL Family (age 18 or over), Corporation, or Partnership Member(s)**
to be included and eligible for voting (add $5 for each) _____ **@ $5 =** $_____
(If these additional members would like to receive mailings, please note address(es) -- use back of form if you need additional space – otherwise, one mailing will be sent to the address above.)

_____ _____

_____ _____

[ ] **ASSOCIATE DUES** (for businesses or individuals that do not own cattle). . . . . $ **35.00**

[ ] **Youth Member(s) under 18** (please list below) . . . . . **NO CHARGE**

_____ _____

_____ _____

[ ] To purchase a **brand block** ($15 to cover cost), draw the brand in the box as accurately as possible

. . . . . $_____

TOTAL AMOUNT DUE . . . . . $_____

Authorizing Signature _____

University of Idaho Extension

Owyhee County

238 8th Ave. W., P.O. Box 400
Marsing, ID 83639
(208) 896-4104 FAX (208) 896-4105
Owyhee@uidaho.edu
http://www.extension.uidaho.edu/owyhee

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OCA Winter Meeting
Saturday, February 1, 2014
Oreana

Upcoming Events . . .

January 14, 21, 28 — **Keeping the Legacy Alive . . . Estate and Succession Planning for Farmers and Ranchers,** 1:00-5:00 p.m. (Owyhee Co. Extension Office)

January 30 — **Winter Weed Seminar,** 10:00 a.m. - 3:00 p.m. (Jordan Valley Lion's Den)

Topics Include:

- New Invaders
- Old Standbys
- Use of Milestone herbicide

Idaho and Oregon credits will be given.
For more information, contact Eric Morrison at 541-586-3000 or jvcwma@qwestoffice.net

February 1 — **Winter Beef School** and **Owyhee Cattlemen's Association Meeting** (Oreana) Membership form on page 7. Complete agenda and membership forms will be mailed following the OCA Board of Directors meeting on January 9.

February 4 — **Keeping the Legacy Alive** 1:00-5:00 p.m. (Owyhee Co. Extension Office)

February 5-6, 12-13 — **Owyhee Rangeland Fire Protection Association (ORFPA)** 9:00 a.m. - 5:00 p.m. (Owyhee County Extension Office) For more information, contact Eric Morrison, 541-586-3000, jvcma@qwestoffice.net. Class size is limited.

February 25 — **Keeping the Legacy Alive** 6:00-8:30 p.m. Follow up session. Dinner will be provided. (Owyhee Co. Extension Office)

February 25-28 — **AI School** 9:00 a.m. - 5:00 p.m. (Owyhee Co. Extension Office and local dairy)